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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/668,369	09/24/2003	Peter J. Ianniello	29641-083002	4786
32790	7590	02/08/2005	EXAMINER	
GARY L. SHAFFER 901 BANKS PLACE ALEXANDRIA, VA 22312				SALDANO, LISA M
ART UNIT		PAPER NUMBER		
3673				

DATE MAILED: 02/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/668,369	IANNIELLO, PETER J.
	Examiner Lisa M. Saldano	Art Unit 3673

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 01 December 2004.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-38 is/are pending in the application.  
 4a) Of the above claim(s) 27-29, and 33-38 is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-26 and 30-32 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____ .
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ .	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____ .

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 1, 2, 22, and 23 rejected under 35 U.S.C. 102(b) as being anticipated by Walling (5,728,424).

Regarding claims 1 and 2, Walling discloses a method for forming a textured surface on a geomembrane comprising a process that allow for particles of various colors to be applied to the geomembrane (see column 2, lines 40-45). Walling further discloses that the process can apply particles of various colors, for example white (see column 7, lines 37-50). Walling further discloses that the invention provides for the applications of blends of particles with different colors.

Regarding claims 22 and 23, Walling discloses that one of the colors of the invention is white (see column 7, lines 37-50), which is aposematic to one or more species, such as humans.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3 and 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walling as applied to claim 1 above.

Walling discloses a method for forming a textured surface on a geomembrane as described above. Walling further discloses that the geomembrane comprises properties for changing reflectivity of radiant energy such as heat, light, and/or ultraviolet rays (see column 7, lines 4-10).

Although Walling fails to explicitly disclose that the colors of the geomembrane are monochromatic, it would have been obvious to one of ordinary skill in the art to make the various colors monochromatic because that is a matter of design choice. Furthermore, Walling fails to explicitly disclose a percentage of resistance to ultraviolet light over a period of time in accordance with ASTM standards. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention to obtain the ASTM test values claimed by the applicant of the present invention because such values could be derived from routine experimentation. It would have been obvious to one of ordinary skill in the art to perform routine experiments to determine an optimal range of values for material properties.

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Walling as applied to claim 1 above and further in view of Kittson (6,315,499).

Walling discloses a method for forming a textured surface on a geomembrane as described above. Walling further discloses that the geomembrane comprises properties for

changing reflectivity of radiant energy such as heat, light, and/or ultraviolet rays (see column 7, lines 4-10).

However, Walling fails to explicitly disclose that the colors provide for resistance to degradation.

Kittson discloses a geotextile fabric whereby pigments are used primarily as coloring agents and secondarily or primarily as ultraviolet stabilizers (see column 7, lines 50-55).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Walling to comprise pigments for the purpose of resisting degradation because Walling already states that the geomembrane reflectivity reflects UV rays. Kittson merely confirms that color may be used to stabilize a geomaterial from UV degradation.

6. Claims 8-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walling in view of Kittson, as applied to claim 4 above, in further view of Mohammed et al (5,747,134).

Walling and Kittson disclose inventions as described above.

However, Walling and Kittson fail to explicitly disclose durability with respect to grab tensile strength, puncture resistance, and trapezoidal tear strength under a percentage of resistance to ultraviolet light over a period of time in accordance with ASTM standards.

Mohammed et al disclose polymer and fabric composites used in geocomposite construction whereby materials properties such as grab tensile strength and puncture resistance are evaluated according to ASTM standards at various conditions (see column 8).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Walling or Kittson to obtain the ASTM test values claimed by the

applicant of the present invention because such values could be derived from routine experimentation. Furthermore, Mohammed et al disclose polymer and fabric composites used in geocomposite construction whereby materials properties such as grab tensile strength and puncture resistance are evaluated according to ASTM standards at various conditions.

Mohammed provides ample motivation for one of ordinary skill in the art to perform routine experiments to determine an optimal range of values for material properties.

7. Claims 1 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al (US2003/0022567-A1) in view of Sheets (US2002/0113017-A1) and Walling (5,728,424).

Kim et al disclose geotextiles. Kim et al disclose the use of geomembranes with protective layers such as geocomposites and geotextiles positioned between the geomembranes (see page 1, paragraph [0009]).

However, Kim et al fail to disclose geonets in combination with a geotextile. Kim et al also fail to disclose geomembranes comprising non-black color.

Walling discloses a method for forming a textured surface on a geomembrane comprising a process that allow for particles of various colors to be applied to the geomembrane (see column 2, lines 40-45). Walling further discloses that the process can apply particles of various colors, for example white (see column 7, lines 37-50). Walling further discloses that the invention provides for the applications of blends of particles with different colors.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the geomembrane of Kim et al to comprise colors, as taught by Walling, because the

colors provide light reflectivity among other benefits than a black geomembrane would not necessarily have.

Sheets discloses earth engineering materials wherein a geonet and geotextile are bonded together. Sheets discloses that the geonet provides interior support for a geotextile (see page 10, paragraph [0107]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Kim et al to comprise a geonet, as suggested by Sheets, because Sheets discloses that a geonet core may be provided in combination with a geotextile to provide additional support for the geotextile.

8. Claims 15-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al in view of Sheets and Walling, as applied to claim 1 above, in further view of Mohammed et al (5,747,134).

Kim et al, Sheets and Walling disclose features as described above. More specifically, Walling discloses that the geomembrane comprises properties for changing reflectivity of radiant energy such as heat, light, and/or ultraviolet rays (see column 7, lines 4-10).

However, Kim et al, Sheets and Walling fail to explicitly disclose durability with respect to grab tensile strength, puncture resistance, and trapezoidal tear strength under a percentage of resistance to ultraviolet light over a period of time in accordance with ASTM standards.

Mohammed et al disclose polymer and fabric composites used in geocomposite construction whereby materials properties such as grab tensile strength and puncture resistance are evaluated according to ASTM standards at various conditions (see column 8).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Kim et al, Sheets or Walling to obtain the ASTM test values claimed by the applicant of the present invention because such values could be derived from routine experimentation. Furthermore, Mohammed et al disclose polymer and fabric composites used in geocomposite construction whereby materials properties such as grab tensile strength and puncture resistance are evaluated according to ASTM standards at various conditions. Mohammed provides ample motivation for one of ordinary skill in the art to perform routine experiments to determine an optimal range of values for material properties.

9. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Walling, as applied to claim 1 above, and further in view of Tachauer et al (US2003/0070391-A1).

Walling discloses a method for forming a textured surface on a geomembrane as described above.

However, Walling fails to explicitly disclose that the membrane comprises taste repellants to one or more species.

Tachauer et al disclose a membrane that may be used as a geotextile (see page 1, paragraph [0003]). Tachauer et al further disclose that the membrane may include features such as additives to protect the membrane from deterioration or include an insect or vermin repellant (see page 1, paragraph [0011]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Walling to comprise repellants to species, as taught by Tachauer,

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because the provision of species repellants assists in prevention of destructions and degradation of the geotextile by animals and destructive persons.

10. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Walling in view of Tachauer et al, as applied to claim 24 above, and in further view of Bowen (6,277,889).

Walling and Tachauer disclose features as described above. To review, Tachauer et al disclose that a membrane may include features such as additives to protect the membrane from deterioration or include an insect or vermin repellant (see page 1, paragraph [0011]).

However, Walling and Tachauer fail to explicitly disclose the use of d-pulegone.

Bowen discloses a formulation that functions as an animal repellent wherein the animal may be a bird and/or a mammal (see column 1, lines 25-32). Bowen further discloses that an embodiment comprises d-pulegone as the repellant (see column 1, lines 54-60).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Walling to comprise a repellant in the membrane, as taught by Tachauer, whereby the repellant is d-pulegone, as taught by Bowen, because provision of repellants assists in prevention of destructions and degradation of the geotextile by animals and destructive persons.

11. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Walling in view, as applied to claim 1 above, and in further view of Gilbert (4,699,838).

Walling discloses the invention described above for use underground.

However, Walling fail to disclose that the colors correspond to a color coding scheme for underground utilities.

Gilbert discloses reinforced metallic and polymer tape whereby certain color codes have been preselected for use with certain underground utility installations used in the invention (see column 2, lines 15-56).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Walling to comprise color codes for underground utilities, as taught by Gilbert, because provision of color coding assists excavators in identifying utilities through color coding. This assists in preventing potentially harmful conditions due to damaged hazardous utility lines.

12. Claims 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walling (5,728,424) in view of Scuero (5,720,576).

Walling discloses a method for forming a textured surface on a geomembrane comprising a process that allow for particles of various colors to be applied to the geomembrane (see column 2, lines 40-45). Walling further discloses that the process can apply particles of various colors, for example white (see column 7, lines 37-50). Walling further discloses that the invention provides for the applications of blends of particles with different colors. Walling clearly states that geomembranes are frequently employed in excavation work, hydraulic engineering and civil engineering (see column 1, lines 10-20).

However, Walling fails to explicitly disclose a method for facilitating the installation of one or more geocomposites.

Scuero discloses underwater construction of impermeable protective sheathings for hydraulic structures. Scuero discloses the usefulness and practicality of supplying indication or instruction for the correct installation of geomembranes underwater (see column 2, lines 1-10). Scuero also discloses a method for installation of geomembranes and/or geocomposites for construction hydraulic structures (see column 2, lines 24-45 AND Figs.4&5). The method inherently comprises instructions to show the relative placement of one or more segments of the geomembranes. The figures disclosed by Scuero function as diagrams, blueprints or plans of the instructions.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the disclosure of Walling to comprise a method for facilitating the installation of geocomposites, geotextiles or geomembranes, as suggested by Scuero, because as Scuero clearly states, provision of instructions thereby facilitating installation of geomaterials is useful and practical. Furthermore, the provision of instructions helps to ensure that the geomaterials are properly installed and will function in a reliable manner.

13. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Walling in view of Scuero, as applied to claim 30 above, and further in view of Phillips et al (5,611,981).

Walling and Scuero disclose features as described above. Specifically, Scuero discloses the usefulness and practicality of supplying indication or instruction for the correct installation of geomembranes underwater (see column 2, lines 1-10).

However, Walling and Scuero fail to disclose that the instructions may be provided via a computer network.

Phillips et al disclose the use of computers to provide instructions (see column 33, lines 15-20).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Walling or Scuero to comprise a method for providing instruction with the use of computers, as taught by Phillips et al, because the use of computers and computer networks are commonly used to provide all manner of information, including instructions.

### *Conclusion*

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Markusch et al (US2003/0206775/A1) disclose features that are pertinent to the present application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lisa M. Saldano whose telephone number is 703-605-1167. The examiner can normally be reached on Monday-Friday, 8:30am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather C. Shackelford can be reached on 703-308-2978. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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